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EXAMINER	
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2173	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/835,484	ANWAR, MAJID	
	Examiner	Art Unit	
	Michael Roswell	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 May 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20040722*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 2, 14, 15, 20, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Alam et al (U.S. Patent 6,336,124).

2. In regards to claim 1, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), and allow for the translation of multiple documents (Column 6, Lines 50-54). Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63). Furthermore, Alam et al convert the parsed input into an intermediate format containing all of the content of the parsed input data (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4).

3. In regards to claim 2, Alam et al teach the conversion of the intermediate format to an output format using intermediate format blocks (Column 2, Lines 16-18), like applicant's claimed shape processor.

4. In regards to claim 14, Alam et al teach the grouping of parsed elements based upon their location attributes (Column 6, Lines 57-61).

5. In regards to claim 15, Alam et al create output format blocks that map specific style elements within each block (Column 13, Lines 15-22).

6. In regards to claim 20, Alam et al teach their method in a computer system with a central processor (Column 4, Lines 53-55).

7. In regards to claim 22, Alam et al teach the conversion of an input format into a different output format suited to various application programs (Column 2, Lines 12-18).

8. In regards to claim 23, Alam et al allow for the use of their method on a multi-processor computer system (Column 4, Lines 60-64).

9. Claims 24, 25, 27, 28, 31-33, and 36-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Meltzer et al (U.S. Patent 6,125,391).

10. In regards to claim 24, Meltzer et al disclose the use of highly structured document file formats such as extensible mark-up language (XML) files to exchange information between businesses (Column 2, Lines 34-38). The data is received, identified, and processed by transaction processes (Column 2, Lines 60-64). The document is then interpreted into an internal representation that includes the digital document content structure as found in the XML document, and a second document, the document type definition (DTD) file, that defines the data content tags found in the XML file (Column 10, Lines 29-43), encompassing all of the content found in the input data. An output file is formed by combining the XML file with the DTD file and is transmitted to the user (Column 3, Lines 39-45).

11. In regards to claim 25, Meltzer et al obtain their input data from a network or the Internet, which streams data to the data processing system (Column 1, Lines 38-42).

12. In regards to claim 27, Meltzer et al use a multitude of listener functions that process specific documents based on their format or elements within the documents (Column 24, Lines 59-65).

13. In regards to claim 28, Meltzer et al parse the data to identify the document's element tags and meta data (Column 3, Lines 34-36), and link the tags and meta data to a definition file representative of the types of content in the data document (Columns 2-3, Lines 55-67 and 1-10).

14. In regards to claim 31, Meltzer et al describe an element event generator that filters out specific content of an input document (Column 27, Lines 12-15).

15. In regards to claim 32, Meltzer et al disclose the use of participant nodes for altering the structure of input and output documents (Column 3, Lines 60-66).

16. In regards to claim 33, Meltzer et al describe the establishment of logic structures, content models, and the definition of documents to alter document content (Column 4, Lines 4-11).

17. In regards to claim 37, Meltzer et al parse input to identify the input's document type, which in turn defines the content and structure of the input (Column 6, Lines 45-48).

18. In regards to claim 38, Meltzer et al unpack sets of related documents into a stream of "mark-up" messages sent to appropriate applications and services, such as a display (Column 10, Lines 60-65).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

> matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alam et al.

21. In regards to claim 19, Alam et al allow for the application of their method into various output devices connected to a network, such as PDAs, laptop computers, cellular telephones, and pagers (Column 20, Lines 3-7). However, Alam et al fail to teach handheld computers, set top boxes, facsimile machines, copiers, embedded computer systems, printers, and in-car systems as specific output devices. It is well known in the art that handheld computers, set top boxes, facsimile machines, copiers, embedded computer systems, printers, and in-car systems fall under the general category of output devices, and may be attached to the invention of Alam et al. The examiner takes OFFICIAL NOTICE of these teachings. Therefore, it would have been obvious to one of ordinary skill in the art to institute the method of Alam et al into various other output devices such as those claimed by the applicant.

22. In regards to claim 21, Alam et al have been shown to include a core processor system in their invention, but fail to teach the use of a RISC processor specifically. It is well known in the art that RISC and CISC processors may exist in a core processor system as described by Alam et al. The examiner takes OFFICIAL NOTICE of these teachings. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a RISC processor into the core processor system of Alam et al.

23. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meltzer et al.

Meltzer et al disclose a method where text characters and character data are encoded to "a natural language word" (Column 4, Lines 44-50), however Meltzer et al fail to teach specific text encoding formats. It is well-known in the art that many formats and techniques for encoding exist, such as Unicode, Ciphertext, Big 5, and shift mapping. The examiner takes OFFICIAL NOTICE of these teachings. Therefore, it would have been obvious to one of ordinary skill in the art in incorporate those formats for text encoding into the method of Meltzer et al.

24. In regards to claims 29 and 30, Meltzer et al have been shown to teach mapping data to a set of object types representative of the content present in the source data. Meltzer et al further teach a library of definitions for input and output documents that are mapped to related object types (Column 3, Lines 14-16). Under the broadest definition of the term, a document is any piece of work that is created by an application, and contains data for use by an application. Therefore, it would have been obvious to include a multitude of document types suitable for input, output, identification and mapping into the method of data translation of Meltzer et al.

25. Claims 3-10, 12, 13, 26, 34, 35, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alam et al and Meltzer et al.

26. In regards to claims 3, 5, and 8, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format (Column 6, Lines 54-63) and map the intermediate

format data to a display (Column 7, Lines 2-4), like applicant's core document engine. Alam et al further define the structure of a document in terms of data types and parameters (Column 6, Lines 50-63).

The difference between the claims and Alam et al is the claims recite the separation of document structure and content, a library of object types upon which an internal representation of data is based, and a shape processing module to convert an object and parameter representation of input into a suitable output data format.

Meltzer et al disclose a method for processing digital documents similar to that of Alam et al. Furthermore, Meltzer et al describe the separation of document structure and content between the elements of an XML file and the defining DTD (Column 3, Lines 22-32), a library of object types upon which an internal representation of data is based (Column 3, Lines 11-14), and a shape processing module to convert an object and parameter representation of input into a suitable output data format (Column 26, Lines 19-26).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Alam et al and Meltzer et al before him at the time of the invention to modify the digital document processing system of Alam et al to include the separation of structure and content, library of object types, and shape processing module of Meltzer et al to obtain a digital document processing system capable of breaking down input documents into basic blocks with pre-defined elements and converting the basic blocks back into a suitable output format.

One would be motivated to make such a combination as the advantages of editing the structure and content of an input file separately, defining elements of input documents outside of the input document itself, and being able to output that document into various formats. See Meltzer et al, Column 2, Lines 64-67 and Column 3, Lines 1-32.

27. In regards to claim 4, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4), like applicant's core document engine. Alam et al define the structure of a document in terms of data types and parameters (Column 6, Lines 50-63).

Combining the teachings of Alam et al and Meltzer et al has been shown *supra* to obtain a digital document processing system that receives input in a plurality of data formats, parses the input into an internal representation of primitive structures, maps the representation onto a display, and separately describes the structure and content of the input.

Alam et al further describe a digital document processing system where parameter types of document objects include dimensional and physical (Column 7, Lines 60-66), but fail to teach the use of temporal parameters as claimed. Parameters to specify the display time of an object are well known in the art. The examiner takes OFFICIAL NOTICE of these teachings. It would have been obvious for one of ordinary skill having the teachings of Alam et al before him at the time of the invention to include temporal parameters among the list of object parameters in the digital document processing system of Alam et al, for the purpose of defining the display time of an on-screen object.

28. In regards to claims 6 and 7, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4), like applicant's core document engine. Alam et al define the structure of a document in terms of data types and parameters (Column 6, Lines 50-63).

Combining the teachings of Alam et al and Meltzer et al has been shown *supra* to obtain a digital document processing system that receives input in a plurality of data formats, parses the input into an internal representation of primitive structures, maps the representation onto a display, and separately describes the structure and content of the input.

Alam et al further teach a parsing and rendering module to generate an object and parameter representation of an internal representation of input data through the use of element tags (Column 7, Lines 28-38), on the basis of a first control input to the parsing and rendering module, the first control input being the initial input document.

Alam et al allow for the retention of raster images and vector images in the disclosed intermediate format (Column 6, Lines 63-65), and interpret data from any text authoring or image authoring tool (Column 6, Lines 9-10), but fail to teach the use of specific image parameters fill, path, bounding box and transparency. It is well known in the art that image parameters include the fill, path, bounding box, and transparency of an object. Simple image

authoring tools are known to include functions to allow the user to set such parameters. The examiner takes OFFICIAL NOTICE of these teachings. Therefore it would have been obvious to include fill, path, bounding box, and transparency parameters among other graphical parameters parsed by the parsing and rendering module of Alam et al.

29. In regards to claims 9 and 10, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4), like applicant's core document engine.

The combination of Alam et al and Meltzer et al has been shown *supra* to teach the separation of structure from content in an internal representation of source data, a library of object types upon which internal representation data is based, and a shape processing module for receiving an internal representation and translating it into a suitable output device format.

It can be seen from Figures 15A and 15B of Alam et al that object shapes are processed and displayed as defined by a boundary box and the content within the box, but fail to disclose the specific use of image transparency values. It is well known in the art that image transparency values may be used to facilitate graphic image display, and these values may be created by the image authoring tools described by Alam et al and interpreted by the parsing and rendering module of Alam et al. The examiner takes OFFICIAL NOTICE of these teachings.

Therefore, it would have been obvious to process an on-screen object based in part on a transparency value to allow for a more varied display, for example, placing images behind text on screen.

It can also be seen from Figures 15A and 15B that Alam et al use boundaries around on-screen objects to determine the area of a display that text, images, and other such objects will be located. Alam et al describe such a method in Column 14, Lines 39-45.

30. In regards to claims 12 and 13, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4), like applicant's core document engine.

Alam et al fail to teach the use a universal text-encoding module in a digital document processing system, or the use of specific encoding types, such as Unicode, shift mapping, and Big 5.

Meltzer et al disclose a method where text characters and character data are encoded to "a natural language word" (Column 4, Lines 44-50). Many formats and techniques for encoding exist, such as Unicode, Ciphertext, Big 5, and shift mapping.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Alam et al and Meltzer et al before him at the time of the invention to modify the

digital document processing system of Alam et al to include the universal text-encoding of Meltzer et al in order to obtain a digital document processing system capable of translating documents into various forms and formats.

One would be motivated to make such a combination for the advantage of document portability between multiple applications and operating systems, and document encryption.

31. In regards to claim 26, Meltzer et al disclose the use of highly structured document file formats such as extensible mark-up language (XML) files to exchange information between businesses (Column 2, Lines 34-38). The data is received, identified, and processed by transaction processes (Column 2, Lines 60-64). The document is then interpreted into an internal representation that includes the digital document content structure as found in the XML document, and a second document, the document type definition (DTD) file, that defines the data content tags found in the XML file (Column 10, Lines 29-43). An output file is formed by combining the XML file with the DTD file and is transmitted to the user (Column 3, Lines 39-45). Meltzer et al obtain their input data from a network or the Internet, which streams data to the data processing system (Column 1, Lines 38-42).

The difference between the claims and Meltzer et al is the data source originating from a data file, peripheral device, and byte steam generated from a data file.

Alam et al teach the use of a data file, peripheral device, and byte stream from a data file as being the source of input data. Alam et al disclose the extraction of data from many data file types (Column 2, Lines 28-36), peripheral devices such as scanners or facsimile machines (Columns 5-6, Lines 65-67, 1-8), and byte streams generated from data files, such as Internet HTML files (Column 2, Lines 37-40).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Alam et al and Meltzer et al before him at the time of the invention to modify the method for displaying content and accepted input sources of Meltzer et al with the multiple sources of Alam et al to obtain a document processing and display system where data may originate from various sources, such as peripheral devices and streams from the Internet.

One would be motivated to make such a combination in order to create a robust program capable of manipulating input data from almost any capable input source. Such robustness enables the invention to take advantage of many file types, such as those presented by Alam et al (Column 2, Lines 1-11).

32. In regards to claim 34, Meltzer et al disclose the use of highly structured document file formats such as extensible mark-up language (XML) files to exchange information between businesses (Column 2, Lines 34-38). The data is received, identified, and processed by transaction processes (Column 2, Lines 60-64). The document is then interpreted into an internal representation that includes the digital document content structure as found in the XML document, and a second document, the document type definition (DTD) file, that defines the data content tags found in the XML file (Column 10, Lines 29-43). An output file is formed by combining the XML file with the DTD file and is transmitted to the user (Column 3, Lines 39-45). Meltzer et al obtain their input data from a network or the Internet, which streams data to the data processing system (Column 1, Lines 38-42).

The difference between the claims and Meltzer et al is the inclusion of dimensional, temporal, and physical parameters within document objects in the claims.

Alam et al disclose the use of dimensional and physical parameters to define characteristics of an object (Column 7, Lines 60-66), but fail to specifically disclose the use of

temporal object parameters. Parameters to specify the display time of an object are well known in the art. The examiner takes OFFICIAL NOTICE of these teachings. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Meltzer et al and Alam et al before him at the time of the invention to modify the display method of Meltzer et al to include the dimensional, temporal, and physical parameters of Alam et al to obtain a display method with precise display parameters.

One would be motivated to make such a combination for the advantage of accurate display of an on-screen object, and in the case of Alam et al, to join word objects together to form lines (Column 8, Lines 16-21).

33. In regards to claim 35, Meltzer et al disclose the use of highly structured document file formats such as extensible mark-up language (XML) files to exchange information between businesses (Column 2, Lines 34-38). The data is received, identified, and processed by transaction processes (Column 2, Lines 60-64). The document is then interpreted into an internal representation that includes the digital document content structure as found in the XML document, and a second document, the document type definition (DTD) file, that defines the data content tags found in the XML file (Column 10, Lines 29-43). An output file is formed by combining the XML file with the DTD file and is transmitted to the user (Column 3, Lines 39-45). Meltzer et al obtain their input data from a network or the Internet, which streams data to the data processing system (Column 1, Lines 38-42).

Meltzer et al do not incorporate a multi-processor system into their method of display.

Alam et al disclose the use of a multi-processor system in their digital document processing system (Column 4, Lines 60-64).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Meltzer et al and Alam et al before him at the time of the invention to modify the display method of Meltzer et al with the multi-processor system of Alam et al to obtain a method for display of a digital document that runs on a multi-processor system.

One would be motivated to make such a combination to enable the system to run on a number of systems and system layouts. See Alam et al, Column 4, Lines 60-61.

34. In regards to claim 39, Meltzer et al disclose the use of highly structured document file formats such as extensible mark-up language (XML) files to exchange information between businesses (Column 2, Lines 34-38). The data is received, identified, and processed by transaction processes (Column 2, Lines 60-64). The document is then interpreted into an internal representation that includes the digital document content structure as found in the XML document, and a second document, the document type definition (DTD) file, that defines the data content tags found in the XML file (Column 10, Lines 29-43). An output file is formed by combining the XML file with the DTD file and is transmitted to the user (Column 3, Lines 39-45). Meltzer et al obtain their input data from a network or the Internet, which streams data to the data processing system (Column 1, Lines 38-42). Meltzer et al parse input to identify the input's document type, which in turn defines the content and structure of the input (Column 6, Lines 45-48), and unpack sets of related documents into a stream of "mark-up" messages sent to appropriate applications and services, such as a display (Column 10, Lines 60-65).

The difference between Meltzer et al and the claims is that Meltzer et al do not process parameters enabled to flow content into a structure defined by a document object.

Alam et al teach the parsing of document elements to determine the location and structure of content to be displayed (Column 16, Lines 60-67 and Column 17, Lines 1-6).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Meltzer et al and Alam et al before him at the time of the invention to modify the parsing and processing system of the display method of Meltzer et al with the syntactic analysis method of Alam et al to obtain a method for digital document display where document objects are parsed and content is inserted into an output structure based upon parsing rules and element parameters.

One would be motivated to make such a combination for the advantage of reformatting documents for different display configurations as outlined by a document object (Alam et al, Column 15, Lines 54-55) and the ability to enforce structural rules within the document such as grammar rules (Column 17, Lines 3-6).

35. In regards to claim 40, Meltzer et al disclose the use of highly structured document file formats such as extensible mark-up language (XML) files to exchange information between businesses (Column 2, Lines 34-38). The data is received, identified, and processed by transaction processes (Column 2, Lines 60-64). The document is then interpreted into an internal representation that includes the digital document content structure as found in the XML document, and a second document, the document type definition (DTD) file, that defines the data content tags found in the XML file (Column 10, Lines 29-43). An output file is formed by combining the XML file with the DTD file and is transmitted to the user (Column 3, Lines 39-45). Meltzer et al have also been shown to define a structure and content of a data file through parsing a set of document objects, and creating a set of objects capable of being rendered on an output device.

The difference between the claims and the teachings of Meltzer et al is the claims recite the rendering of output to a visual display, audio speaker, video player, television display, printer, disc drive, network, and embedded display.

Alam et al teach the output of data to an output device, which may or may not be specified by a user, and lists as an example a portable digital assistant (Column 5, Lines 53-60). Alam et al list as hardware for an embodiment of their invention a monitor (also capable of playing videos), speakers, a printer, a hard drive, and a network interface (Column 4, Lines 52-60), all possible output devices. Although not explicitly disclosed, it is well known in the art that a computer system may be suitably connected to a television monitor to display visual output. The examiner takes OFFICIAL NOTICE of these teachings.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Meltzer et al and Alam et al before him at the time of the invention to modify the digital document display method of Meltzer et al to include the various output devices of Alam et al to display the output of Meltzer et al on various systems.

One would be motivated to make such a combination for the advantage of application portability and the ability to output data to various hardware devices and computer systems. See Alam et al, Column 5, Lines 3-6.

36. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alam et al and Harrington (U.S. Patent 5,278,678).

Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input

into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4), like applicant's core document engine.

Alam et al do not teach the use of a chrominance/luminance-based color model to describe color data.

Harrington describes a scheme for rendering "a high quality image on a display with moderate resolution" (Column 4, Lines 69-50), as would be utilized in the digital document processing system of Alam et al. In addition, Harrington further discloses the use of a chrominance/luminance-based color model to describe color data (Column 3, Lines 15-20).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Alam et al and Harrington in front of him at the time, to modify the digital document processing system of Alam et al to include the chrominance/luminance-based color model of Harrington to obtain an output system for the digital document processor that produces colors described in terms of their chrominance and luminance values.

One would be motivated to make such a combination to allow for fast color manipulation, structuring of an image, color correction, and animation effects. See Harrington, Column 2, Lines 37-39 and Columns 4-5, Lines 67-68 and 1-6.

37. Claims 17, 18, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alam et al and Rivette et al (U.S. Patent 5,623,681).

38. In regards to claims 17, 18, and 41, Alam et al disclose the receipt of input data in one of a plurality of predetermined or supported formats, and associating the input with a

predetermined or supported format (Column 5, Lines 21-34 and Fig. 3, items **302** and **304**), like applicant's application dispatcher. Alam et al further interpret the input based on the file format (Column 5, Lines 35-38) and parse the input into an intermediate format (Column 5, Lines 54-57), or internal representation, that contains primitive structures representative of the input (Column 6, Lines 54-63), much like applicant's document agent. Furthermore, Alam et al convert the parsed input into an intermediate format encompassing the content found in the input data (Column 6, Lines 54-63) and map the intermediate format data to a display (Column 7, Lines 2-4), like applicant's core document engine.

Alam et al further disclose the digital document processing system on a computer system (data processing device) that interacts with a graphical use interface (Column 4, Lines 34-37).

Alam et al fail to teach the generation of a graphical user interface system for controlling the digital document processing system.

Rivette et al teach a method for extracting, displaying, and manipulating documents (specifically patent documents) similar to the digital document processing system of Alam et al. Rivette et al disclose the generation of Equivalence Files (Column 10, Lines 11-15) that are similar to an internal representation of input data. These files are navigated and manipulated by way of the graphical user interface described by Rivette et al (Column 4, Lines 8-15).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Alam et al and Rivette et al before him at the time of the invention to modify the digital document processing system of Alam et al to include the graphical user interface of Rivette et al to obtain a system for the interpretation and formatting of documents that may be manipulated by a graphical user interface.

One would be motivated to make such a combination for the advantages of viewing, manipulating, and editing digital documents before the documents are processed and formatted. See Rivette et al, Column 10, Lines 28-41.

39. In regards to claim 42, Alam et al and Rivette et al have been shown *supra* to teach a user interface for interaction with a digital document processing system. Alam et al disclose using a mouse and keyboard to interact with a graphical user interface (Column 4, Lines 34-37), but fail to teach the use of touch pads, touch screens, joysticks, and keypads as claimed. It is well known in the art that many hardware devices exist for sending user input to a computer system and for manipulating a graphical interface. Touch pads, touch screens, joysticks, and keypads are all well known input devices of this manner. The examiner takes OFFICIAL NOTICE of these teachings. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Alam et al and Rivette et al before him at the time of the invention to incorporate various hardware input devices into a computer system to allow a user to manipulate the graphical user interface of a digital document processing system.

Response to Arguments

Amendments to Figure 2 and claim 40 are sufficient to overcome the Examiner's stated objections.

The rejection of amended claims 24 and 30 under 35 U.S.C. § 112 is withdrawn.

Applicant's arguments filed 6 May 2004 have been fully considered but they are not persuasive. Alam et al and Meltzer et al both teach the ability to convert multiple documents and multiple document types, and thus teach receiving a plurality of input bytestreams.

Furthermore, as the internal representations depicted by Alam et al and Meltzer et al include all content related to the input data, Alam et al and Meltzer et al teach representing the collective content of the input bytestreams in an internal representation format.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Roswell whose telephone number is (703) 305-5914, and at (571) 272-4055 on or after October 18, 2004. The examiner can normally be reached on 8:30 - 6:00 M-F. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116, and at (571) 272-4048 on or after October 18, 2004. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Roswell
10/13/2004

CAO (KEVIN) NGUYEN
PRIMARY EXAMINER